

**Notice of Allowability**

Application No.

09/668,995

Examiner

Luke S. Wassum

Applicant(s)

KOJIMA ET AL.

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2167

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 8 January 2007.
2. ☒ The allowed claim(s) is/are 1-7, 11-14, 16, 17, 20 and 21.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some\* c) ☐ None of the:
- ☒ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

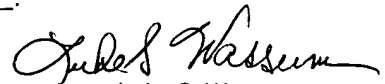
Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date \_\_\_\_\_
- ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
- ☐ Notice of Informal Patent Application
- ☐ Interview Summary (PTO-413), Paper No./Mail Date \_\_\_\_\_
- ☒ Examiner's Amendment/Comment
- ☐ Examiner's Statement of Reasons for Allowance
- ☐ Other \_\_\_\_\_



Luke S. Wassum  
Primary Examiner  
Art Unit 2167

## DETAILED ACTION

### *Response to Amendment*

1. The Applicants' amendment, filed 8 January 2007, has been received, entered into the record, and considered.
2. As a result of the amendment, claims 1-3, 5, 11-14, 16, 20 and 21 have been amended, and claims 8-10, 18 and 22 have been canceled. Claims 15, 19 and 23 have been previously canceled. Claims 1-7, 11-14, 16, 17, 20, 21 and 24-30 remain pending in the application. Claims 24-30 have been withdrawn from consideration as being drawn to a non-elected invention.

### *Priority*

3. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

A priority date of 17 November 1999, based on Japanese patent document 11-327,483, has been established for the instant application.

## EXAMINER'S AMENDMENT

4. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Nathan Weber on 14 February 2007.

The application has been amended as follows:

1. (currently amended) A data management apparatus for managing data used when executing an application program stored on a computer readable recording medium, said data management apparatus included in a switching system for providing services related to communication, comprising:

a data field for storing the data, wherein the data field is composed of a plurality of data setting areas, and the data is stored in a single or plural data setting areas according to a size of the data;

an address acquirer for acquiring an address in said data field of the data for which an access is requested by the application program when receiving a pointer lending request from the application program;

a lending pointer table for storing at least one of the pointer records, each of which has the acquired address and a pointer corresponding to the acquired address, the pointer indicating an address of the pointer record;

a lender for informing the application program of the pointer corresponding to the acquired address when the acquired address is registered in the lending pointer to lend the read pointer to the application program;

an allocation controller for determining, when the application program requests to add data to the field, if the data field has a first empty area that exists between the data setting areas each having a state of in-use and is composed of a single or plural continuous data setting areas, each of which has a state of unused, having a size equal to or larger than a size of the data to be added, to store the data to be added in the first empty area;

an adder for storing the data to be added in the data field according to a determining result of the allocation controller; and

a data setting area management table to register use-condition of each of the data setting areas, an address of the first empty area and an address of a second empty area,

each corresponding to the size of the respective empty area, the data setting area management table being referred to the allocation controller to determine a storing position for the data to be added.

In claim 2, please replace "a reader reading out" with  
-- a reader for reading out --.

In claim 3, please replace "a deleter deleting the data" with  
-- a deleter for deleting the data --.

In claim 3, please replace "fieldaccording to" with  
-- field according to --.

In claim 4, please replace "an invalidity informer informing the application" with  
-- an invalidity informer for informing the application --.

In claim 5, please replace "a relocater relocating the data" with  
-- a relocater for relocating the data --.

In claim 5, please replace "an address updater detecting the pointer record" with  
-- an address updater for detecting the pointer record --.

16. (currently amended) A method for managing data used when executing an application program included in a switching system for providing services related to communication, comprising the steps of:

storing the data in a data field, wherein the data field is composed of a plurality of data setting areas, data is stored in a single or plural data setting areas according to a size of the data;

acquiring an address in the data field of the data for which an access is requested by the application program when receiving a pointer lending request from the application program;

storing at least one of the pointer records, each of which has the acquired address and a pointer corresponding to the acquired address, in a lending pointer table, the pointer indicating an address of the pointer record;

informing the application program of the pointer corresponding to the acquired address when the acquired address is registered in the lending pointer table to lend the read pointer to the application program;

determining, when the application program requests to add data to the data field, if the data field has a first empty area that exists between the data setting areas each having a state of in-use and is composed of a single or plural continuous data setting areas, each of which has a state of unused, having a size equal to or larger than a size of the data to be added, to store the data to be added in the first empty area;

storing the data to be added in the data field according to a determining result of the allocation controller; and

registering use-condition of each of the data setting areas, an address of the first empty area and an address of a second empty area, each corresponding to the size of the respective empty area, the data setting area management table being referred to the allocation controller to determine a storing position for the data to be added.

20. (currently amended) A computer readable medium storing a program for managing data used when executing an application program included in a switching system for providing services related to communication, the program comprising instructions that when executed on a computer perform the steps of:

storing data in a data field, wherein the data field is composed of a plurality of data setting areas, data is stored in a single or plural data setting areas according to a size of the data;

acquiring an address in the data field of the data in which an access is requested by the application program when receiving a pointer lending request from the application program;

storing at least one of the pointer records, each of which has the acquired address and a pointer corresponding to the acquired address in a lending pointer table, the pointer indicating an address of the pointer record;

informing the application program of the pointer corresponding to the acquired address when the acquired address is registered in the lending pointer table to lend the read pointer to the application program;

determining, when the application program requests to add to the data field, if the data field has a first empty area that exists between the data setting areas each having a state of in-use and is composed of a single or plural continuous data setting areas, each of which has a state of unused, having a size equal to or larger than the size of the data to be added, to store the data to be added in the first empty area;

storing the data to be added in the data field according to a determining result of the allocation controller; and

registering use-condition of each of the data setting areas, an address of the first empty area and an address of a second empty area, each corresponding to the size of



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the respective empty area, the data setting area management table being referred to the allocation controller to determine a storing position for the data to be added.

Please cancel claims 24-30.

*Allowable Subject Matter*

5. Claims 1-7, 11-14, 16, 17, 20 and 21 are allowed.

*Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Luke S. Wassum whose telephone number is 571-272-4119. The examiner can normally be reached on Monday-Friday 8:30-5:30, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

In addition, INFORMAL or DRAFT communications may be faxed directly to the examiner at 571-273-4119. Such communications must be clearly marked as INFORMAL, DRAFT or UNOFFICIAL.

Customer Service for Tech Center 2100 can be reached during regular business hours at (571) 272-2100, or fax (571) 273-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Luke S. Wassum  
Primary Examiner  
Art Unit 2167

lsw  
16 February 2007